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<110> Chromatin, Inc.

<120> PLANTS MODIFIED WITH MINI-CHROMOSOMES

<130> 30844/30003A

<150> 60/547,256

<151> 2004-02-23

<160> 52

<170> PatentIn version 3.3

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 <213> Drosophila melanogaster

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<212> DNA

<213> *Drosophila melanogaster*

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<210> 10

<211> 1999

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 10

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1999

<210> 11

<211> 2001

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 11

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 tttaaacagc agaacttaac tcaactcatca cgctgtttcc gctgaatttt ctcaaaaatat 1920
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<210> 12

<211> 2000

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 12

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aaccatagc aactcataaa 2000

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<210> 13
<211> 2001
<212> DNA
<213> Saccharomyces cerevisiae

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<400> 13
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<210> 14
<211> 2001
<212> DNA
<213> Saccharomyces cerevisiae

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<210> 15

<211> 2001

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 15

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<210> 16
 <211> 2000
 <212> DNA
 <213> *Saccharomyces cerevisiae*

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<210> 17

<211> 2001

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 17

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<210> 18

<211> 1999

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 18

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<210> 19

<211> 1999

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 19

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<210> 20

<211> 2009

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 20

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<210> 21
<211> 1943
<212> DNA
<213> Saccharomyces cerevisiae

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<210> 22
<211> 2001
<212> DNA
<213> *Saccharomyces cerevisiae*

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tctgttaacg	acaatcaa	aacctgatct	gccaaaggctc	catcatatct	ggcctagaac	1740
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tgtgaaaaaa	aaaaaaaaag	attataaaag	gtcagcgaag	cacagaactc	tgagataaga	1920
ctacctttct	ttagctagg	gagaatattc	gcaattgaag	agctcaaaag	caggtaacta	1980
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<210> 23

<211> 1999

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 23

tcctaaggac	atattccgtt	cgtacttgag	ttattggatc	tatgaaatcg	ctcgctatac	60
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tgacaacgaa	gcttgtgttt	tcaattctgc	aatatttgct	ttactttctc	ttgtagggtt	180
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gcttttagtg	gatgtcatca	cacgtaaacc	ggcggtagaa	gggaaagaat	ggaggatcat	300
cacatacaac	atgaaccaat	atattgttta	tcatgggcaa	tggcatactc	cgtattactt	360
ttacagcgat	gaggattgct	accgttattt	tctacgcctt	gttgagggag	taacccccaa	420
gaagcaaaaca	gccacgtcaa	ttggcaattc	tccggtcacc	gctaagcctg	aagatgccat	480
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gatcgaacga	caagctcagg	aaaattactg	gcgaaggcgg	catcccaata	tcgatgcgct	600
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tgagcgtatt tatttgataa cggtttacgt aactggtgga ataaaaatca actatcatct 1260
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 ctttccgtcc gccccggcgg ctgtatcagc gtcaactgga acgcgcatat atatacaaga 1920
 cacacataac atagaagcac acccagcaca ataaccacac gacaataacc acaccgccc 1980
 accctcctt tccgtatac 1999

<210> 24
 <211> 91
 <212> DNA
 <213> Glycine max

<400> 24
 aaawtcaaac gacaataact tttkactcgg atgtccgatt gwgccccgta rtatatcgag 60
 acgctcgwaa ttgaaaacwg aagctctrag m 91

<210> 25
 <211> 92
 <212> DNA
 <213> Glycine max

<400> 25
 aaattcaaact ggtcataact tttmacwcgg akgtccgatt caggcgcata atatatcgag 60
 acgctcgaaa ttgaacaayg gaagctctcg ag 92

<210> 26
 <211> 91
 <212> DNA
 <213> Glycine max

<400> 26
 aaattcaaact gacaataact ttttactcgg atgtcgygatt gagtccccgta atatatcgag 60
 acgctcgaaa ttgaatrytg aagctctgag c 91

<210> 27

<211> 266
 <212> DNA
 <213> Brassica oleraceae

<220>
 <221> misc_feature
 <222> (38)..(38)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (242)..(242)
 <223> n = a, c, g, or t

<400> 27
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 gtagccgttt ctccaggctcc ctctccggaa tcgaacccta attctccgtc acccggttacc 180
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 tngccagcac taaggccatg cgatcg 266

<210> 28
 <211> 345
 <212> DNA
 <213> Brassica oleraceae

<220>
 <221> misc_feature
 <222> (9)..(9)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (17)..(17)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (27)..(27)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (41)..(41)
 <223> n = a, c, g, or t

<400> 28
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 cttcttacia agtgattcat cctgggttga ttggaacgac gaacaagttg tgctattccc 180
 aaacttgga actggaatca cctgacttga aagtgggata acttcttcat cccaactcct 240
 atgagattta ttcaacttcc tggatgattct ccaccacttt atgtatccaa atcaagcttc 300

ttacaaagtg attcattctg gtttgtttgg aacgacgaag aagcg 345

<210> 29
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 29
ggtggtcggc cggagcaciaa gcgggccaag cccatgcttg 40

<210> 30
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 30
ggtggtcggc cgcaggttgc atatgaatct ttaactgaca g 41

<210> 31
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 31
ggtggtcggc cgcgagcaca agcgggccaag gcccatgctt g 41

<210> 32
<211> 42
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 32
ggtggtcggc cgtcaggttg catatgaatc ttaactgac ag 42

<210> 33
<211> 39
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 33
ggtggtcggc cgtcgtcggc acttggcagc gaaatctcc 39

<210> 34
 <211> 42
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic primer

<400> 34
 ggtggtcggc cgcattatca tataattatg ttttgcgtgc tc 42

<210> 35
 <211> 38
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic primer

<400> 35
 ggtggtcggc cgcgtcggca cttggcagcg aaatctcc 38

<210> 36
 <211> 41
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic primer

<400> 36
 ggtggtcggc cgattatcat ataattatgt tttgcgtgctt c 41

<210> 37
 <211> 105
 <212> DNA
 <213> Lycopersicum

<220>
 <221> misc_feature
 <222> (18)..(18)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (29)..(29)
 <223> n = a, c, g, or t

<400> 37
 accaaatttg ttcgtggnac gtctcaana cgttgtctat gcatacggtt ggccatcacg 60

gcctttccga cccatttgga aggtcaaacg aaccocgaag tgagc 105

<210> 38
 <211> 105
 <212> DNA
 <213> Lycopersicum

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<220>
<221> misc_feature
<222> (40)..(40)
<223> n = a, c, g, or t

<400> 38
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gacgattttc gtgtgctatt gcacaccatt ttttgggtga tggag 105

<210> 39
<211> 256
<212> DNA
<213> Lycopersicum

<400> 39
gtaacgacct gtttagtcgt tttgagcagc agattttatt tctggaaaaa caggctgaga 60
cgacggaaac cacgacggac cgtcatgggc acgacggacc gtcgaggggg tctcgttcca 120
aaacacttag aattctgaaa tttgggtact gaaatcgact ctctgaactt cgtgaagaag 180
tggcaggacg gaccgtcgtg ggcacgacgg accgtcacag gcccttcaat aatttcagtc 240
tctgaactct gtgacg 256

<210> 40
<211> 574
<212> DNA
<213> Plant Telomere probe

<400> 40
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gggttttagg tttagggttt agggtttagg gtttaggggt tagggtttag ggtttagggt 480
ttagggttta gggtttaggg tttagggttt agggtttagg gtttaggggt tagggtttag 540
gtgagcccg gtttaaaccg ccgggccgct gacc 574

<210> 41
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

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<400> 41
 aggcgcgccca cctgcaggag agctcgggtct catcgagaca c 41

<210> 42
 <211> 34
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic primer

<400> 42
 ggtcgacggc ccgggcgttt aaacccgggc tcac 34

<210> 43
 <211> 155
 <212> DNA
 <213> Glycine max

<220>
 <221> misc_feature
 <222> (4)..(4)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (26)..(26)
 <223> n = a, c, g, or t

<400> 43
 gttnttgctg tttgaatttg ctgagnacct tcaacattca atttcgagcg tctcgatata 60
 ttacgggact taatcagaca atcgagtaaa aagttattgt cgtttgaatt tgctcagagc 120
 ttctgttttc aattacgagc gtctcgatat attac 155

<210> 44
 <211> 167
 <212> DNA
 <213> Glycine max

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (13)..(13)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (31)..(31)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature

<222> (39)..(39)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (54)..(54)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (65)..(65)
 <223> n = a, c, g, or t

<220>
 <221> misc_feature
 <222> (96)..(96)
 <223> n = a, c, g, or t

<400> 44
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 tcganaaatt caaatgggtca taactttcca cacggnaggt tagattcaag cgcataatat 120
 atagagaagc tcgaaatata acaactaaag ctctcgcgaa attcaaa 167

<210> 45
 <211> 216
 <212> DNA
 <213> Glycine max

<220>
 <221> misc_feature
 <222> (34)..(34)
 <223> n = a, c, g, or t

<400> 45
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 gtgcctgata gaattgatcg gatcatgtag gaacaagggt caagtctacc ggtctgttag 120
 gatgcctcag ctgcatacat cactgcactt ccacttgaca cctatcatta attagaaacg 180
 gctcgtctcg ccgtgacctt ctcttgaatt ctcaaa 216

<210> 46
 <211> 605
 <212> DNA
 <213> Glycine max

<220>
 <221> misc_feature
 <222> (368)..(368)
 <223> n = a, c, g, or t

<400> 46
 ggtgttgggc ctttaaaaat gatcctttta acttggtgaag aaaagctgag ataaaacttt 60
 caaatctttt ttttagtgatt ttttggtgga cgagcttgac ttggcgaatt gatttttagcc 120


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ttagtttcgc tttagttatt agtcaattca attaagaatg ataatccca aagagaaaat 180
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attttacctc tttttttgat ttccaacgtg gttacggcac gaccgagcgg ttggaactcc 300
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tagattangc gcgaaatgac ttaaataaat gactgaagca tgtcaaaagg gggatatggaa 420
agtaatgaaa ataagaataa aaatacatga aacacaatgt ggaccactac gggtagatag 480
aatgaatcga aaagcttggt tcgaggtact taccggttga agatcgaaga acgatgaaga 540
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```

```

<210> 47
<211> 24
<212> DNA
<213> Artificial sequence

```

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<220>
<223> Synthetic probe

```

```

<400> 47
tgaacggcca cgagttcgag atcg 24

```

```

<210> 48
<211> 24
<212> DNA
<213> Artificial sequence

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```

<220>
<223> Synthetic probe

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<400> 48
gtcctcgttg tgggaggtga tgtc 24

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```

<210> 49
<211> 24
<212> DNA
<213> Artificial sequence

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<220>
<223> Synthetic probe

```

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<400> 49
ctgccactcc atttccttct cggc 24

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<210> 50
<211> 24
<212> DNA
<213> Artificial sequence

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<220>
<223> Synthetic probe

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<400> 50
acttatccgg tcctagatca tcag 24

<210> 51
<211> 176
<212> DNA
<213> Brassica oleraceae

<400> 51
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gagttggcat gaagaagtta tcccmctttc aaatcagggtg attccagttt cccagtttgg 120
gaatagcaca gcttcttcgt cgttccaatc aaaccaggat gaatctcttt gtaaga 176

<210> 52
<211> 176
<212> DNA
<213> Brassica oleraceae

<400> 52
accttcattt ggatacataa agtagtgkag aatcaccagg aagttgaata aatctcatag 60
gagttaggat gaagaagtta tcccactttc aaataagggtg atcccagttt yectgtttgg 120
gaatatgaca acttcttcgt cattctaatc aaaccaggat gaatckygat gtwaga 176